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SUGGESTIONS
FOR
GYMNASTIC EXERCISES
FOR SCHOOLS.

## SUGGESTIONS

FOR

# Gymnastic Exercises 

FOR

## Schools,

BY
HELLEN CLARK SWAZEY.


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## 1

"It is not a soul, it is not a body, that we are training up; it is a man, and we ought not to divide him into two parts."
-Montaigne.

## INTRODUCTION.

Before the adjustment of any truth to a balance is reached, popular opinions are subject to extreme oscillations; and thus it has been common for the scholar to despise "brute force," and for the athlete to regard with contempt the mere student. But we now recognize the fact that mind and body are complementary to each other, and that, as co-ordinate parts of a whole, their development should be simultaneous. It is not intended to question the fact that the body should be subservient to the mind, but it is evidently a great loss of power if the mind, in the exercise of its faculties, must fight against the body or drag it reluctantly along.

Mind is pre-eminent. Even beauty and grace are chiefly delightful to the cultivated observer as embodiments or earnests of mental attributes: but that which is higher must exist upon a basis of what is lower, and that which is interior must be expressed in something exterior. It is, therefore, important that the mind should have good physical conditions under which it may manifest itself.

The brain is our sole physical organ of thought, and the work which it does is immediately dependent upon the quality and amount of blood which is sent to it by the circulatory system. Since the condition of the blood, moreover, is largely dependent upon its unrestricted flow to all parts of the body and upon its free oxidization, physical exercise becomes an important factor in mental training and is a legitimate and useful part of school work.

It is not possible in this little manual to enter into the physiology or philosophy of movements, but merely to suggest a few approved exercises to teachers who are desirous of making a beginning with their pupils in systematized exercise.

Acknowledgment is made to Miss Allen, of the Allen Gymnasium Company, for the following movements, many of which are selected from her work.

Boston, Feb. 1887.
H. C. S.

## gENERAL REMARKS TO THE TEACHER.

It is very desirable that any one who regulates the physical exercise of himself or of others should have an intelligent knowledge of skeletal and muscular anatomy and of the general and particular effects of exercise. The body as well as the mind of each individual bears within itself its own standard of perfectibility, and this personal standard must be kept constantly in mind. Until, however, public conviction of the utility of the simultaneous training of body and mind is sufficiently strong to demand gymnasiums which shall be under the charge of teachers educated for the purpose of supervising them, the most that can be accomplished in school work is light general exercise.

It is absolutely essential that the clothing of the pupil should, in all cases, be sufficiently loose to admit of free and unimpeded movement. Already, in a few schools, blouse waists prettily made are voluntarily worn as a school uniform by teachers and pupils ; and the Flint or Equipoise waists upon which the dress skirts can be securely buttoned are replacing the stiff and awkward looking corset-cages. It is hoped that the obvious benefits of such a plan will soon be recognized in all schools and that it will become as popular as comfort, grace, and health urge that it should be.

In class work it is impossible to give much special attention to any one pupil, and out of twenty-five or fifty pupils there may be a few, who, from individual peculiarity, are unable to profit from some part of the exercises, and these exceptional cases should be carefully noted.

Accuracy should be insisted upon and no new movements undertaken while those already given are carelessly performed, but the exercises should be sufficiently diversified to be entertaining and should never be allowed unduly to tax the mind.

It is well to begin with a few movements for the upper extremities and pass then to the lower extremities. After this, breathing and other exercises for the middle third of the body may be given, returning again to other exercises if desired.

The air in the room must be fresh and pure, while the temperature during exercise should never be over $66^{\circ}$ (Fahr.) or under $60^{\circ}$. After exercising it is well to throw some wrap over the shoulders for a few moments or until the temperature of the room is $70^{\circ}$.

# gYMNASTIC EXERCISES FOR SCHOOLS. 

## BREATHING.

One of the most valuable series of exercises that can be given for home, school, or gymnasium work, is the forced breathing movements. In ordinary respiration and expiration comparatively few muscles are brought into action and these so lightly that the expansion and contraction never reach their maximum.

It is evident from the drooping heads, stooping shoulders, and cramped chests common among school children that there is special need for the development of the upper third of the body. The most important point to be gained, however, in chest work is the enlargement of the thoracic cavity from within rather than the building up of muscles from without, although the latter should not be neglected. Increase in the diameter of the chest is most satisfactorily obtained by breathing exercises, for in forced inspiration every muscle which can by contraction elevate the ribs and enlarge the chest is made to work, while forced expiration, which normally is mainly a simple, elastic re-action, brings into active service many muscles that are used in running, leaping, walking, dancing, and also the muscles used in bending and twisting the body.

Cautions.-No movements should be given very strongly at first, and breathing movements should not be continued until the veins become swollen in the forehead or until dizziness is experienced. In cases of organic heart disease forced breathing exercises should be without exception omitted as well as all other movements that have a marked effect upon respiration. The first four movements given may be taken either sitting or standing; the others require a standing position.

There will be found a tendency to fill only the upper or middle section of the lungs with air, or if a full breath is taken the shoulders are likely to be raised; this tendency must be guarded against. The action should begin at the diaphragm. The lower part of the lungs is to be filled as far downwards and outwards as possible, that is, the lower chest in a correct move-
ment will be seen to increase uniformly, in size, in lateral and transverse directions. The air is forced into the lungs much as water is poured into a pitcher, until the upper lobes of the lungs, which extend to the clavicle, are filled, and as many as possible of the six hundred million air cells of the lungs are brought into contact with the oxygen of the air.

Position.-Head erect,chin slightly back of vertical, shoulders firm and low, arms by the side. Breathe always through the nostrils, never through the mouth.

1. Take in a full breath, hold it five seconds.

Repeat from one to four times. Very gradually increase the number of seconds during which the breath is held, until the air can be retained in the lungs, with ease, from forty to sixty seconds.
2. Take in a breath quickly, and let it out with a continuous movement as slowly as possible, resisting the inclination of the lungs to push it all out at once, particularly on the last part of the movement.

Repeat from one to four times.
3. Take in a breath as slowly as possible with a continuous movement, and let it out quickly, as soon as the lungs are full.

Repeat from one to four times.
4. Take in a breath as slowly as possible and let it out as slowly as possible.

Repeat from one to four times.
5. Take a full breath into the lungs and blow it out strongly through the mouth formed as for whistling.

Repeat three or four times in quick succession.
6. Hands at side horizontal, palms facing upward. Clap the hands three times over the head while holding the breath. The face should be turned to the ceiling in this movement. (See foot-note.)

Repeat from one to four times.

[^0]7. Hands at front horizontal, palms facing each other. Rise on the toes, at the same time throwing arms to side horizontal three times while holding the breath.

Repeat from one to four times.
8. Hands locked over the head. Sway forward to the floor, bending at the waist and keeping the knees stiff.

Repeat from one to four times while holding the breath.
9. Hands firmly on the hips. Twist the body to the right while slowly inhaling, and turn to front position while slowly exhaling. Same movement to the left.

Repeat from one to four times.
10. Hands on hips, force the elbows strongly backward toward each other four times.

Repeat from one to four times.

## FREE MOVEMENTS.

"Free" or Swedish movements may be made to exert a strong influence upon the circulatory system, but they must be so arranged that each joint shall receive every motion of which it is capable, if the full benefit of the movements is to be received.

Such of these movements as are practicable for school use are here grouped into one series. They may be separated into four series, and each series used by itself.

Position.-Hands on the hips, heels together, feet at an angle of $60^{\circ}$, shoulders back and falling evenly, hips well back, eyes square to the front, head erect.

Head.-Position, Fig. 1. (a) Turn to side, as in Fig. 2. (b) Bend to side, as in Fig. 3. (c) Bend forward and backward, as in Fig. 4. (d) Thrust chin strongly forward, and draw it in and back, as in Fig. 5.

Caution.-The movements should be kept clear, returning to the position in Fig. 1, between each repetition, or change of a movement. Great care should be taken to avoid jerking. Head and trunk movements should be given but half as many

times, and with but half the speed of other movements. It is customary to take two movements of the head and trunk on each side and four alternate movements, and four to each side, four alternate and four double, with other parts of the body.


Fig. 6.


Fig. \%.

Shoulders.-Position: Arms at side low horizontal; hands clinched. (a) Thrust strongly up toward the ears. (b) Thrust forward. (c) Thrust backward. (d) Rotate. The action of Nos. $a$ and $d$ are indicated in Figs. 6 and \%.


Fig. 8.


Fig. 9.

Arms. - (a) Throw from side low to side horizontal.
Throw from side low to front horizontal. (c) Throw from side low to side vertical. (d) Rotate.

These movements should be taken strongly, as if striking a blow. The wrist and elbow should be unbent. These actions are illustrated in Figs. 8 and 9.


Fig. 10.
Fig. 11.

In rotation, the arms should describe perfect circles. It is necessary to sway the body slightly from the waist to accomplish this movement perfectly.

Fore-arms.-Position as in Fig. 10. (a) Throw out from shoulder to front horizontal. (b) Throw out to side horizontal from shoulder, Fig. 11. (c) Curl to breast from side low, Fig. 12. (d) Thrust under arm from side low, with sufficient force to raise the shoulder, Fig. 13.


Fig. 12.


Fig. 13.

In the first two of these movements the accent should be placed upon the outward part of the movement. In the next two, upon the upward part of the movement.

Wrists. - (a) Arms held horizontal at front, bend wrist upward. (b) Arms held horizontal at side, bend wrist backward. (c) Arms held horizontal at front, bend wrist to side. (d) Arms held horizontal at side, rotate wrist from left to right, and from right to left.

Fingers.-Arms held horizontal in front. (a) Thrust fingers out to their fullest extent, i. e., from the clinched fist position of Fig. 14 to Fig. 15. (b) Arms held horizontal at side, palm up, fist clinched, as in Fig. 16. Thrust fingers out and
backward, holding them closely together, as Fig. 1\%. (c) Arms held horizontal in front, fingers straight, palm down, as in Fig. 18. Bend from first joint, keeping the other joints unbent, as


Fig. 14.


Fig. 16.


Fig. 15.


Fig. $1 \%$


Fig. 21.
in Fig. 19. (d) Arms held horizontal at sides, fingers bent at all the joints, as in Fig. 20. Stretch strongly out until fingers are straight, as in Fig. 21.


Fig. 22.


Fig. 23.

Trunk.-Hands on the hips. (a) Twist alternately to sides. (b) Bend alternately to sides, bend forward. (c) Brace the back with the hands and bend backwards. (d) Rotate from left to right and from right to left.

Caution.-See head movements.
Legs.-Hands on hips. (a) Throw leg to front horizontal, as in Fig. 22, a. (b) Throw to side horizontal, as in Fig. 23. (c) Throw out diagonally in front, as in Fig. 22, b. (d) Throw straight back, as in Fig. 22, d.

Caution.-Keep knee stiff, point toes down and bring the leg back lightly but firmly to position.


Fig. 24.


Fig. 25.

Lower Leg.-Hands on hip. (a) Bend lower leg back from knee, so that the sole of the foot is turned upward toward the ceiling, Fig. 24, $a$. (b) Thrust up in front, pointing the toe downward and bringing the knee up toward the chest, Fig. 24, $b$. (c) Cross the right foot over the left knee, drawing the knee back so that the foot and knee are in the same straight line, Fig. 25. (d) Cross the right foot behind the left knee. The movement is the same as Fig. 25, except that it is taken behind the knee, instead of in front of it.


Fig. 26.


Foot.-(a) Rise on toes
(b) Raise toes. (c) Bend the leg at knee and place the right toe down sharply back of the left heel, bending the foot somewhat forward so that the right toe and heel shall be in the same straight line as Fig. 26.
Fig. 2\%. Turn feet strongly outward, Fig. 2\%.

## DUMB BELLS.

## SERIES I.

Position.-Head erect, shoulders square to the front and falling evenly, hips back, trunk erect, heels together, arms at side low; palms front, grasping bells firmly, the head of the bell pointing in toward the thigh. See Fig. 28.


Fig. 28.

1. Turn the bells half way round so that the backs of the hands shall be toward the front. Turn half way round again, to first position, and continue the movement sixteen times. On the last beat of the measure bring the hands to the hips, as in Fig. 29 , ready to charge, and on the first beat of the next measure make the first forward charge.

For the charge, imagine the foot-mark prolonged. Upon this prolonged diagonal line place the right foot at a distance of a foot and a half or two feet from the left foot. Throw the weight on the right foot, bending strongly at the knee, and turning the head strongly over the right shoulder in a line with the right elbow and right knee.
The parts of the charge should be taken simultaneously. See Fig. 29. The charge should occupy the same time as the movement, that is, eight accented and eight unaccented beats; on the last beat return to the position of Fig. 28, except that the hands are retained on the hips. This position is held eight beats, or half the time occupied by the charge. On the eighth beat the arms are thrust quickly to side horizontal, palms up, and held in this position during eight more counts.
2. Turn the bells half way round, so that the palms are downward. Continue the movement back and forth through sixteen counts, on the last count bringing the arms to the side. and charging as in No. 1, Fig. 29, except that this charge is made to the left and the head turned over the left shoulder.
3. Come back to position as before, and on the last half of the eighth count extend the arms at front horizontal, palms up. Turn the bells as in Nos. 1 and 2, bringing them to the hips on
the last half of the sixteenth count, ready for the third forward charge, and on the first beat of the next measure charge, as in Fig. 29, turning the head, however, over the opposite shoulder. Come to position as before, and on the last part of fourth count bring the arms up to about an angle of $45^{\circ}$ from front horizontal, palms facing inward.
4. Hold through eight beats as in the other numbers, and turn bells back and forth as before, placing the hands on the hips ready for the fourth forward charge, which is taken on the last half of the sixteenth count. This charge is like the second


Fig. 29.
forward charge, except that the head is turned over the opposite instead of the same shoulder. Come to position as in the other numbers, dropping the hands to the side low, as in Fig. 28. Hold through eight counts ; on the first beat of the next measure, bring bells to front horizontal, palms down, striking the bells with the thumb ends of the bells toward each other,strike the little finger ends of the bells behind the back, Fig. 30. The bells should be struck firmly in front and lightly behind the back. Continue the movement through sixteen counts. On the last half of the last count bring the bells to the chest, the wrists resting against the thorax. The chest should be thrown forward and the shoulders drawn back, Fig. 31.


Fig. 30.


Fig. 31.
5. From first position of Fig. 31, push the bells down strongly to side low. Alternate the movement eight times, and take it double eight times. Come to position for charging with the bells at the hips, as in the previous charges.

Imagine a line about two feet back


Fig. 32. of the right diagonal of a foot mark, and parallel with it. Upon this line place the right foot. The feet should be at right angles with each other. The weight is thrown on the left leg, which is bent at the knee; the head is turned over the opposite shoulder from the direction of the charge, Fig. 32. Hold the charging position until the last half of the sixteenth count, when the return is made to the first position of Fig. 31.
6. From the first position of Fig. 31, thrust alternately and doubly to side horizontal, as indicated in the same figure, coming to position on the last half of the sixteenth count for the second backward charge, which is the
same as the first backward charge, Fig. 32, except that it is made to the right, and the head is turned over the left shoulder. Come to position on the last half of the sixteenth count. Hold through eight counts. Bring the bells to side low. Hold through eight more counts in this position.
7. Strike the bells at the thumb ends at front horizontal, palms down. Strike behind the back at the little finger ends, palms forward. Strike over head thumb ends of the bells,


Fig. 33.


Fig. 34.
palms front. Stop the striking on the fifteenth count, bringing the bells to the first position of Fig. 31, on the sixteenth count.
8. Thrust the bells alternately and doubly from the first position of Fig. 31, to front horizontal, coming to position for the third backward charge, which is like the first backward -charge, Fig. 32, except that the head is turned toward the same side as that on which the charge is made. Come to first position of Fig. 31, as before.
9. Thrust the bells alternately and doubly to vertical. Keep the elbows stiff and bring the arms close to the ears. Come to position for fourth backward charge. This charge is the same
as the second backward charge, except that the head is turned toward the same side as that on which the charge is made.
10. Come to position on the last half of the sixteenth count with the arms parallel in front, the elbows stiff, wrists firm, and heads of bells extending up and down. Twist the body to the right and to the left, keeping the feet firmly in position on the floor and the arms parallel, Fig. 33.
11. Bring bells to top of shoulders, as in Fig. 34. Thrust up to vertical, as in same figure, rising on the toes as the bells are thrust up. Bring the bells back to the top of shoulders. Stoop, hitting the bells on the floor at the side of the feet. Return bells to shoulder and repeat.

Remark.-The charging positions may be made stronger by increasing the distance of the charge and by bending the charging knee more strongly. In returning to position after a charge the pressure should be made upon the ball of the charging foot, and the pupil should come back to position with a slight springiness of movement. Heavy movements and dragging the feet should be avoided.

## DUMB BELLS.

## SERIES II.

1. Arms at side low. Bend wrist inward strongly four times; bend outward four times. Alternate bending in and bending out.
2. Rise strongly on toes eight times.
3. Arms at sides horizontal, palms up. Bend wrist up four times; bend back four times. Alternate bending up and back.
4. Raise toes strongly eight times.
5. Arms over head close to the ears, elbows stiff. Sway body to right and to left. (The body movement is the same as in Fig. 54, but the arms are parallel.)

Caution.-Use this movement carefully.
6. Bells at side low. Turn toes strongly outward, and bring again close together.
7. Bells high over head, palms front.

Fig. 35. Swing to sides horizontal, to front horizontal,
palms up, striking the bells to sides horizontal and high over head again.
8. Bells at sides low. Stoop, pushing up strongly from the toes in coming to position.
9. Raise bells to sides horizontal ; swing to front horizontal, striking the bells, palms down. Swing back to sides horizontal, down hard to sides low.

## DUMB BELL MARCH.

Good marching, although somewhat difficult to teach, is a useful and enjoyable exercise when well done. The head should be held erect, the shoulders and hips back, while the


Fig. 36.


Fig. 3\%.
leg should be allowed to swing easily from the hips. The feet should be turned slightly outward from a straight line in walking or marching, and the heel and the toe should strike the floor almost simultaneously, the heel touching a very little sooner than the toe. Special attention is called to securing a well-balanced carriage of the body, and "balance walking" may be used advantageously as preliminary practice for marching. Standing on the right foot, on count one, draw the left


Fig. 38.

knee up toward the chest, the toe pointing downward and outward. On count two, straighten the knee; on count three, hold the preceding position, and on count four put it down. The weight of the body is on the right foot while the left is ex-


Fig. 40.
tended, and changed to the left when the right is extended, Fig. 36.

The left foot is always advanced on the accented beat of the measure. Time should be marked by alternately raising the feet without advancing them for one or two measures before the order "March" is given.

The "marching" position is hands on the hips, although for the dumb bell march the arms are held at side low, unless otherwise specified.

1. March.


Fig. 41.


Fig. 42.
2. Bells on shoulders, elbows well back, Fig. 34.
3. Bells parallel at full reach over head, Fig. 34.
4. Bend body to left side through four measures, hands on hips and to right through four measures, Fig. 37.
5. Bend body forward through four measures, Fig. 38.
6. March.
\%. Thrust bells strongly back, keeping the shoulders firm, as the left foot is advanced, Fig. 39.
8. March.
9. Throw bells to side horizontal from side low, Fig. 40. Repeat through several measures.
10. From the last position, swing bells to front horizontal, parallel, the heads of the bells pointing up and down, Fig. 41.

Swing to side horizontal, Fig. 41. Repeat through several measures.
11. March.
12. Thrust shoulders alternately up and down, Fig. 42.
13. March stooping, hands on hips, Fig. 4\%.
14. March on toes.


Fig. 43.


Fig. 44.


Fig. 45.
15. March on heels, Fig. 43.
16. March, turning toes out so that heel and toe are on the same horizontal line, Fig. 44.
17. Strike from side low in front and behind the back, Fig. 30.


Fig. 46.


Fig. 4\%.
18. March.
19. Right bell in hand curled over head, left bell extended straight at side horizontal, palm up, Fig. 46.

Alternate position, bending left arm over the head and extending the right at the side through several measures.
20. Skip. Bring the left heel to the center of the right foot, raising the left heel and pointing the left toe downward, Fig. 45. Slide along the floor lightly. Reverse the movement and skip in the opposite direction. The head should be turned over the shoulder in the direction in which the pupil is skipping.
21. March.

Various other steps and movements may be introduced in marching, such as hopping twice on the left foot and twice on the right, clapping the hands. The "hop-pi-ty skip" movement, leaping, cross step leaping, waltz, racquet and polka steps may also be introduced, and varieties of double marching.

## WANDS.

In fully equipped gymnasiums the wand is not usually considered very valuable, as the same movements are more satisfactorily obtained from other apparatus, but when only light and portable apparatus is available the wands may be used to advantage.

The movements noted here are selected by permission from the "Pulley Weight Wand Drill," used by Mr. R. J. Roberts with his classes.

Caution.-Nos. 53,54 , and 55 should be used with care, and No. 53 should be omitted by those who are subject to back ache or other weakness of the back.

Position-Heels together, hips and shoulders well back, grasp the wand tightly and keep the arms unbent at the elbow, unless other direction is given.

1. Wands at full reach, palms down at about shoulder width apart, Fig. 48. Reach down and touch the toes keeping the knees stiff, Fig. 49.
2. Raise wands to front horizontal as in Fig. 48.
3. From front horizontal raise the wand to high over head, palms front as in the third position of Fig. 48.
4. Combine Nos. 1 and 2,2 and 3, 1 and 3,1,2 and 3.

Stop the movement on the odd count, i.e., when the arms are at front horizontal.
5. Wands at front horizontal, at height of shoulder, palms down. (a) Twist hard to right. The wand is now perpendic-
ular. Twist back to horizontal. (b) Repeat the movement on the left. (c) Alternate, Fig. 50.
6. (a) Wands at front horizontal, step back with right foot, keeping the feet at right angles. At the same time that the


Fig. 48.
charge is made, the wand should be thrown to high over head. The face should be turned up toward wand. (b) Repeat this movement, charging with the left foot. Alternate the charge with right and left feet, Fig. 51.

Discontinue the movement on the odd count, $i . e .$, when the wand is high over head.


Fig. 49.



Fig. 51.

7. Spread the arms farther apart, ( $a$ ) while the hands still firmly grasp the wand. Drop the wand down, behind the shoulder, bending the right arm over the head. The wand


Fig. 53.
should be brought down close to the side, the left hand holding the wand as if it were a pen. (b) Bring wand to first position, tightening the grasp on the wand. Repeat on the left side, and (c) alternate the movement.

Position and action $a$ are seen in Fig. 52.


Fig. 54.


Fig. 55.
8. From high over head, arms spread, tight grasp, drop back of the head in a half circle to the small of the back.

The strength of the action may be increased by placing the hands nearer together as in the over head position of Fig. 48.


Fig. 56.

The position of unbent arms, however, should be rigidly maintained, Fig. 53.
9. Wand behind head, lying across shoulders, forearms resting on wand, hands hanging over the ends of the wand, Fig. 54. Twist the body to the right on its axis ; repeat on left ; alternate.

Caution.-The knees should be kept unbent and the feet firmly on the floor.
10. Same position as in Fig. 54. Bend body to right, keeping the feet firmly in position on the floor, and the knees unbent. Repeat movement on left side; alternate.

Position and action are seen in Fig. 55.
11. Slip the hands from first position of Fig. 52 to shoulder distance apart. (a) Now bring the wand behind the head, resting on the upper part of the shoulders, the forearms at right angles with the arms. From this position thrust to high over head, looking at wand. (b) Bring the wand from high over head to front, the wand resting across the clavicle. Push over head.

From position (b) thrust (c) strongly to front horizontal. For position and action of $b$ see Fig. 56.

Combine $a, b$, and $c$.

## BEAN BAGS.

Bean bags are always a source of amusement and, taken with careful regard to the accuracy of positions, make a useful and inspiriting exercise. For little children the bags should be made about five inches square and two-thirds filled with beans. A quart of beans in a ten inch square bag is not too large for older classes. The bags should be strongly made and kept out of the dust. When, however, they become dusty they should be taken apart and the coverings may be washed.

Stand in couples facing each other, from five to ten feet apart.

1. Throw from high over head to partner.
2. Left hand on hip, right hand high. Throw and catch with right hand.
3. Reverse.
4. The line holding the bag should turn so that the back is turned toward the opposite line. Throw over the head to the
other line and immediately face; the other line, on receiving the bag, turn in the same way and throw over the head.
5. Stoop on toes and throw bag to partner with right hand (left on hip), receive the bag standing.
6. Reverse.
7. Bag behind the back, throw with right hand around the waist to partner.
8. Reverse.

These exercises can be taken with two or more bags as the skill increases. Each movement should be taken ten or more times. The one having first accomplished the required number holds the bag up as a signal of victory. In starting, the bags should all be thrown together at a given word of command.

A bean bag game, suitable for rainy recesses, is given below, and the teacher will find no difficulty in devising others of a similar nature.

1. Stand in two rows down the room about six feet apart. The bags are placed on a chair at the right hand of each leader. At a given signal the bags are passed rapidly from hand to hand down the line. Any bag that is dropped on the floor must remain where it falls until all the other bags on that side have been passed down the line, when they must be picked up by the one to whom it is nearest and passed on down the line. As fast as the bags are received at the farther end of the line, they are placed in a chair beside the leader at that end, until all the bags have been accumulated there, when they are passed rapidly back as at first. The side which first receives all the bags back on the return trip is victor.

## RINGS.

The rings were invented by the late Dr. Dio Lewis, who was an enthusiastic believer in their value and an earnest advocate of their use. So important did he consider this invention that he said that he asked no greater honor in the history of American education than an association of his name with the Gymnastic Ring.

The most serious objection to the ring exercises, however, is the point for which he claims most favor, namely, that they are all composite exercises.

It is impossible to gauge the resistance of a person which is of course constantly changing, and two pupils exactly equal in strength cannot be found. It is obvious that any exercise subject to the varying and uncontrolled force exerted by another person is, at best, questionable.

Exercises with the rings are usually graceful and attractive, and there is no doubt but that the extensor muscles receive, as Dr. Lewis claimed, "diversified action" in these ways. A few of the simplest of Dr. Lewis's ring movements are by request given here.

Caution.-Partners of as nearly the same height as possible should be selected.


Fig. 5\%.
Position. - Stand facing partner, the right toes touching each other. Draw the left leg back about eighteen inches and bend it at the knee slightly. The right and left feet should be at right angles to each other and the weight should be thrown on the left foot. Place the left hand upon the hip and extend the right arms at full reach, each pupil grasping one side of the ring. Keep the shoulders well back and the head erect, Fig. $5 \%$.

Exercise.-1. Pull upon the ring and twist the arm from right to left.
2. Same as the first exercise except that the ring is grasped in the left hands, and the opposite feet extended.
3. Two rings, both hands, otherwise this exercise is the same as No. 1.
4. Two rings, both hands joined, otherwise this exercise is the same as No. 2.
5. Stand in the position of Fig. 58. Raise the left arms and lower the right arms alternately. Carry the rings up and down simultaneously.
6. Stand face to face, at full reach of the arms, feet together and at right angles with each other. The right hands grasp one


Fig. 58.
ring, the left hand is on the hip as in Fig. 5\%. Charge with the right foot diagonally forward, throwing the arms upwards with unbent elbows at the same time that the charge is made.
7. Repeat, joining the left hands and charging with the left foot.

## MUSIC.

Music greatly increases the interest in gymnastic exercises, and is an efficient aid in training the mind and body to act in unison. The body, moreover, falls naturally into rhythmical motion with the music, and grace of movement can in no way be better cultivated than by taking advantage of this tendency.

For free movements almost any good polkas are suitable. The Sultan's Polka, Bella Bocca, Barbe Bleu, Mother Hubbard Polka, and selections from the opera "Martha" have been tried and found satisfactory.

For the Wooden Bells, the Tarantelle by Henry Mayer, and a Saltarelle by Beaumont, are among the best of those which we have found for the purpose.

Waltzes and airs from the operas can be adapted by a skillful musician.

For the wands, Haymarket Schottische.
March music should be in perfect time. Fresh Life, Jolly Hearts, Racquet Galop, Assembling March, Ninth Regiment, Little Tycoon March, Click-et-y Click, and the Nineteenth Century Wonder March are all good.

For most of the movements of the Dumb-bell march, however, slower time is found more desirable. Marquis et Marquise, Circus Rentz Gavotte, Aladdin (Chinese March), and the German Triumphal March are suitable.

## SPECIAL MOVEMENTS.

Fore Arm.

1. Open and shut hand-the latter very firmly.
2. Hold wand in both hands, twist first with the right hand and then with the left.
3. Tighten the hold on the action of every movement.

## Upper Arm.

1. Curling dumb bell to shoulder. (Outer arm.)
2. Push bells over the head.
3. Push with hands against anything solid. (Back arm.)
4. Raise dumb bells behind back, keeping the shoulders firm, and the backs of the hands downwards. (Inner arm.)

## Shoulders.

1. Rotate shoulders.
2. Rotate arms.
3. Dumb bells, Series I., No. 33.

## Chest.

1. Breathing movements.
2. Curl dumb bells to shoulder, push above head, lower to horizontal at sides.
3. Swing arms back horizontally, rising firmly on toes, on backward movement. (Use cautiously with weak chests, and take it with full breath.)

## Abdominal Region.

1. Breathe slowly, raise right knee as in Free Movements Series. Jump with left foot and descend on right toe, repeat on left, and continue several times.
2. Lie on back, keep the knees stiff, raise the legs to vertical.

The strength of this movement may be greatly increased by raising and lowering very slowly, but it should be increased guardedly.

> Thigh (front).

1. Stoop to floor, walk stooping.
2. Run with long strides.

> Thigh (back).

1. Take a full breath, arms at full reach and parallel over head, touch the floor with hands while the knees are kept stiff.

Begin the movement reaching only as far forward as can be easily done at first and gradually increase.
2. Raise heel as far as possible behind, bending knee.

> Calf (front).

1. Fast walking with stiff knee.
2. Walk on heels with toes drawn up high.
Calf (back).
3. Rise on toes as high as possible.
4. Hop.

> Wrists.

1. Bend up and down, from side to side, and rotate. For flexibility, shake quickly back and forth and side-ways as if flirting drops of water from the fingers.

## Ankles.

Sit down and place the feet in a chair so that the feet project beyond the edge of the chair. Bend the feet from side to side, up and down, and rotate. For flexibility, stand and shake the lower leg from the knee, until the ankle joint feels free.

## STRETCCHING MOVEMENTS.

1. Stand with feet separated and arms extended at side horizontal. Stretch the arms slowly and strongly until the fingers can reach no further. Then slowly relax the muscles, as if they were pieces of rubber cord pulling back to position.
2. Feet together, reach arms over head close to the ears and parallel. Stretch high, rise on toes, still stretching the whole body from the feet. Relax slowly.

These two movements are stimulating and equalizing to the circulation.


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As physical training is becoming an established fact in the public schools there is a demand for a well finished and durable line of apparatus at moderate prices, and the following goods are offered as meeting these requirements very fully.


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## PHYSICAL TRAINING APPARATUS.

Dumb bells, full line in wood. Wands. Rings.

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Brief notice of the kindergarten and its occupations.
Language tablets. Word making tablets.
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## BOOKS.

Paradise of childhood, a complete guide to the kindergarten.
Moore's manual of drawing.
The kindergarten and the school.
Kindergarten and child culture.-Barnard.
Songs, games and rhymes for the nursery, kindergarten and primary school.-Mrs. Hailmann.

Songs for little children.-Eleanor Smith.

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[^0]:    Note.-When this occasions faintness or vertigo it should be omitted for a few days and afterward taken lightly, but with increasing strength to an average degree of vigor.

